Low Impedance Driver

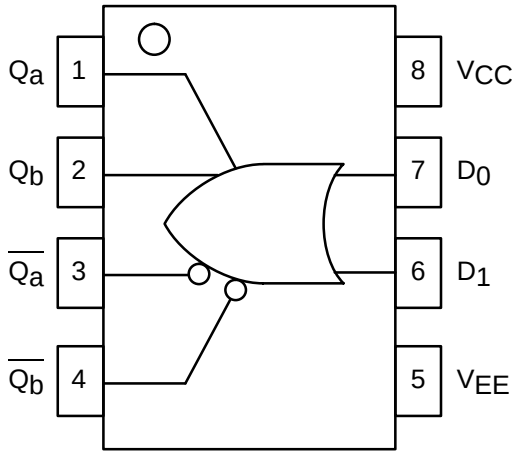
MC10EL12
MC100EL12

The MC10EL/100EL12 is a low impedance drive buffer. With two pairs of OR/NOR outputs the device is ideally suited for high drive applications such as memory addressing. The device is a function equivalent to the E112 device with higher performance capabilities. With propagation delays significantly faster than the E112 the EL12 is ideally suited for those applications which require the ultimate in AC performance.

- 290ps Propagation Delay
- Dual Outputs for 25Ω Drive Applications
- 75kΩ Internal Input Pulldown Resistors
- >1000V ESD Protection

D SUFFIX
PLASTIC SOIC PACKAGE
CASE 751-05

LOGIC DIAGRAM AND PINOUT ASSIGNMENT



PIN DESCRIPTION

PIN	FUNCTION
D0, D1 Qa, Qb	Data Inputs Data Outputs

DC CHARACTERISTICS (V_{EE} = V_{EE}(min) to V_{EE}(max); V_{CC} = GND)

		–40°C			0°C			25°C			85°C			
Symbol	**Characteristic**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Unit**
I_{EE}	Power Supply Current 10EL 100EL		14 14	17 17		14 14	17 17		14 14	17 17		14 16	17 20	mA
V_{EE}	Power Supply Voltage 10EL 100EL	–4.94 –4.20	–5.2 –4.5	–5.5 –5.5	–4.94 –4.20	–5.2 –4.5	–5.5 –5.5	–4.94 –4.20	–5.2 –4.5	–5.5 –5.5	–4.94 –4.20	–5.2 –4.5	–5.5 –5.5	V
I_{IH}	Input HIGH Current			150			150			150			150	μA

AC CHARACTERISTICS (V_{EE} = V_{EE}(min) to V_{EE}(max); V_{CC} = GND)

		–40°C			0°C			25°C			85°C			
Symbol	**Characteristic**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Unit**
t_{PLH} t_{PHL}	Propagation Delay to Output	120	280	500	170	280	450	180	290	450	210	320	480	ps
t_r t_f	Output Rise/Fall Times Q (20% – 80%)	150	350	550	150	350	550	150	350	550	150	350	550	ps

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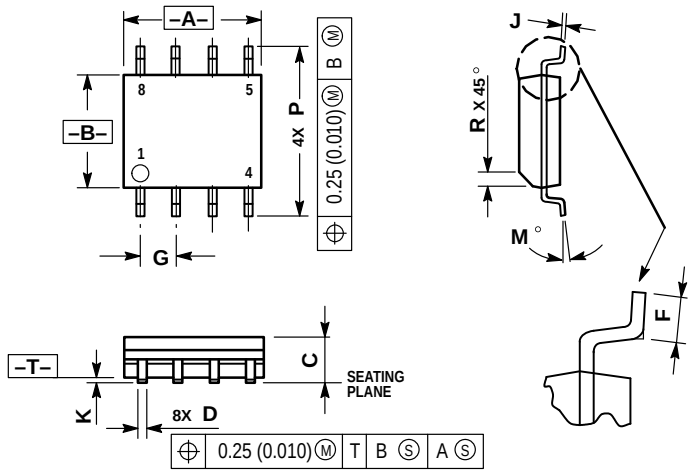
OUTLINE DIMENSIONS

D SUFFIX
PLASTIC SOIC PACKAGE
CASE 751–05
ISSUE P



NOTES:
1. DIMENSIONS A AND B ARE DATUMS AND T IS A DATUM SURFACE.
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
3. DIMENSIONS ARE IN MILLIMETER.
4. DIMENSION A AND B DO NOT INCLUDE MOLD PROTRUSION.
5. MAXIMUM MOLD PROTRUSION 0.15 PER SIDE.
6. DIMENSION D DOES NOT INCLUDE MOLD PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127 TOTAL IN EXCESS OF THE D DIMENSION AT MAXIMUM MATERIAL CONDITION.

	MILLIMETERS	
DIM	MIN	MAX
A	4.80	5.00
B	3.80	4.00
C	1.35	1.75
D	0.35	0.49
F	0.40	1.25
G	1.27 BSC	
J	0.18	0.25
K	0.10	0.25
M	0 °	7 °
P	5.80	6.20
R	0.25	0.50

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